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| 10/092,333  | 03/06/2002         | Imed Gharsalli       | 01-484  | 9000             |           |               |                    |       |
| 719<br>Caterpillar Inc.<br>Intellectual Property Dept.<br>AB 6490<br>100 N.E. Adams Street<br>PEORIA, IL 61629-6490 | 7590<br>12/11/2007 |                      | <table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">NGUYEN, KIMNHUNG T</td></tr></table>      |                  | EXAMINER  |               | NGUYEN, KIMNHUNG T |       |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

**DEC 11 2007**

**Technology Center 2600**

Application Number: 10/092,333  
Filing Date: March 06, 2002  
Appellant(s): GHARSALLI ET AL.

Timothy P. McNulty  
For Appellant

**EXAMINER'S ANSWER**

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendments have been filed subsequent to the last rejection of claims 1-20 in the Office Action mailed on April 4, 2007.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|              |               |         |
|--------------|---------------|---------|
| 6,854,554    | BRANDT et al. | 12-2000 |
| 2003/0060906 | KIM           | 9-2001  |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The “signal” of the claims 1, 4-8 and 14-20 is directed to non-statutory subject matter because it is an abstract idea.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 8-12, 14, 15, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Brandt et al. (US 6,854,554).

As to claim 1, Brandt et al. discloses in fig. 2, a method for controlling a parameter of at least one signal, including the steps of:

receiving a desired command signal (see signal of joystick 102); from at least one control input;

determining a potential condition for receiving an undesired command signal (see signal of joystick 104) from at least one other control input;

adjusting a parameter of an undesired command signal (see actuators 114 include a plurality of settable parameters and actuators to operate in a high speed or low speed fashion, col. 5, lines 52-65) received from the at least one other control input in response to the potential condition, and

delivering the desired command signal and the undesired command signal to at

least one output (see col. 4, lines 27-38).

As to claim 2, Brandt et al. discloses further, wherein receiving a desired command signal (102) includes the step of receiving a desired command signal from at least one axis of a joystick (because joystick 102 having at least one axis).

As to claim 3, Brandt discloses further, wherein receiving a desired command signal includes the step of receiving a desired command signal from at least one lever (because joystick 104 having at least one level).

As to claim 4, Brandt et al. discloses further, wherein receiving a desired command signal (102) includes the step of receiving a desired command signal from an automated program (see col. 4, lines 28-37).

As to claim 8, Brandt et al. discloses in fig. 2, an apparatus for controlling a parameter of at least one signal, comprising;

a plurality of control inputs (102, 104); and  
a controller for (116):

receiving a first command signal from at least one control input (102);

determining a potential condition for receiving an undesired command (104) signal from at least one other control input;

receiving a second command signal from the at least one other input,  
modifying a parameter of the second command signal in response to the potential condition (col.5, lines 52-67), and

delivering the first and second command signals to at least one output (col. 4, lines 27).

As to claim 9, Brandt et al. discloses further, wherein the plurality of control inputs includes a joystick (as discussed above).

As to claim 10, Brandt et al. discloses further, wherein the joystick includes a plurality of axes, each axis providing an associated control input (because the joystick 102, or 104 can rotate with multiple axes).

As to claim 11, Brandt et al. discloses further, wherein the plurality of control inputs includes at least one lever (as discussed above).

As to claim 12, Brandt et al. discloses further, wherein the plurality of control inputs includes at least one automated program for initiating a command signal (see col. 4, lines 28-32).

As to claim 14, Brandt et al. discloses further, wherein the plurality of control inputs includes at least one of a joystick, a lever and an automated program (as discussed above).

As to claim 15, Brandt et al. discloses in fig. 1, further wherein the controller (116) includes an input/output control interface (see left and right joysticks 102, 104, and actuators 114); and at least one of a deadband control function and a gain control function (see col. 6, lines 14-42).

As to claim 17, Brandt et al. discloses further in fig. 2, wherein:

the desired command signal (102) is indicative of an intentional actuation of the at least one control input;

and determining a potential condition for receiving an undesired command signal (104) from at least one other control input includes determining the undesired command

signal to be indicative of an inadvertent actuation of the at least one other control input (see col. 4, lines 42-50).

As to claim 18, Brandt et al. discloses further, a method for delivering a command signal comprising:

receiving a first command signal (102) from a first control input;  
receiving a second command signal (104) from a second control input;  
selectively passing the second command signal through a control function to selectively control a parameter of the second command signal as a function of the first command signal;  
subsequently removing the control function from the second command signal,  
and communicating the first and second command signals to at least one output as discussed in claim 8.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brandt et al. (US 6,854,554) in view of Kim (US 2003/0060906).

Brandt et al. discloses a method for controlling a parameter of at least one signal, including the steps of:

receiving a desired command signal (see signal of joystick 102); from at least one control input;

determining a potential condition for receiving an undesired command signal (see signal of joystick 104) from at least one other control input; and including removing the adjusted from the undesired command (corresponds to the actuators 114 include a plurality of settable parameters and actuators to operate in a high speed or low speed fashion, col. 5, lines 52-65).

Brandt et al. does not express the undesired command signal after an elapsed period of time.

However, Kim discloses the simultaneous operation of two actuators requires the controller system operator to push both levers comprising a slight elapse of time between the operation of the levers (see 0002).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the simultaneous operation of two actuators requires the controller system operator to push both levers comprising a slight elapse of time between the operation of the levers as taught by Kim into the system of Brandt et al. because this would provide a slight elapse of time between the operation of the levels, and the elapse in time prevents a smooth and substantially simultaneous operation of the vehicle actuators (see 0002).

#### **(10) Response to Argument**

Applicant states that "Claim 1 recites "receiving a desired command signal...[and]...adjusting a parameter of an undesired command signal... [and]...delivering the desired command signal and the undesired command signal ....



" See claim 1 in the Appendix. The subject matter of claim 1 transforms the desired signal from an input to an output by receiving the desired command signal from an input and delivering the desired command signal to an output. The subject matter of claim 1 transforms an undesired command signal by (i) adjusting a parameter of the undesired command signal from a first parameter function to a second parameter function that is different than the first parameter function and (ii) delivering the undersired command signal to an output".

"An signal is a physical thing. A signal is an indicator; an impulse or fluctuating electric quantity such as a voltage; or the sound, image, or message transmitted or received in telegraphy, telephony, radio, television, or radar. See The American Heritage College Dictionary, Third Edition".

"Independent claim 1 transforms a physical object into a different state or thing because claim 1 adjusts a parameter. The Examiner improperly characterizes independent claim 1 as being directed to non-statutory subject matter. Additionally, claims 2-7, 16, and 17 each depend from independent claim 1 and are directed to statutory subject matter for at least this reason as well as for their additional features. Accordingly the Board should reverse the Examiner's rejection of claims 1-7, 16, and 17 under 35 U.S.C. § 101 because the rejection is improper".

Examiner respectively disagrees because recites of claim 1, adjusting a parameter of an undersired command signal is broad because the parameter of an undesired command signal is not clear and only a abstract idea.

Claims 8 and 18 are similar claim 1 as mention.

Applicant states that "The Examiner rejected claims 1-4, 8-12, 14, 15, 17, and 18 under 35

U.S.C. § 102(e) as being anticipated by Brandt. The Board should reverse this rejection because the Examiner has failed to establish a proper anticipation rejection based on Brandt. A proper anticipation rejection requires each and every element set forth in the claim to be found in a single prior art reference. MPEP § 2131. Brandt does not disclose changing a parameter after it has been set”.

Applicant states that “In the Office Action, the Examiner contends that Brandt discloses, in col. 5, lines 52-67).

“a potential condition for receiving an undesired command signal (see signal of joystick 104) from at least one other control input...adjusting a parameter of an undesired command signal (see actuators 114 include a plurality of settable parameters and actuators to operate in high speed or low speed fashion...). That means that Brandt discloses a plurality of setting parameters to adjust the high speed and low speed”

Furthermore, Applicant states that “Brandt does not disclose or suggest “determining a potential condition for receiving an undesired command signal from at least one other control input...[and]...adjusting a parameter of an undesired command signal received from at least one other control input in response to the potential condition,” as recited in independent claim 1. In contrast, Brandt merely discloses that parameters can be set by a user prior to use by changing software.

“Brandt does not disclose “adjusting” a parameter merely by mention that parameters can be set by a user prior to use by changing software. Changing software replaces one parameter with another does not change a parameter. In fact, Brant is disclosing that a user can customize the

maximum forward and reverse speed attainable via actuation of joysticks 102,104 by changing software so as a drive pump is sufficiently stroked. See Brant at lines 56-60, col. 5.”

Examiner respectfully disagrees because Brandt et al. disclose “adjusting” a parameter by using actuators 114 includes a plurality of settable parameters and actuators to operate in high speed or low speed fashion, see col. 5, lines 52-65).

Applicant states that “the Examiner contends that” Kim discloses the undesired command signal after an elapsed period of time”, Office action at lines 20-21, page 6.

“This is a gross mischaracterization of the disclosure of Kim. For example, paragraph [0002] of Kim merely identifies that simultaneous operation of two actuators with the same hand establishes an elapsed period of time between the operation of the two actuators. That is, the two actuators cannot necessarily be actuated simultaneously with the same hand. However, merely mentioning that "an elapsed period of time" exists, does not establish that Kim teaches, "removing [an] adjusted parameter from [an] undesired command signal after an elapsed period of time" as recited in claim 16. Indeed, the cited portion, or any other portion of Kim is not relevant to removing an adjusted parameter.

Examiner respectfully disagrees because Kim does mention that simultaneous operation of two actuators with the same hand or two hands (see 0002) establishes an elapsed period of time between the operation of the two actuators. Therefore, the two actuators can be actuated simultaneously with the two hands. Kim does mention that “an elapsed period of time” (corresponds to there is a slight elapse of time between the operation of the levers, and the elapse in time prevents a smooth and substantially simultaneous operation of the vehicle actuators, see 0002). Kim also does not teach "removing the adjusted from the undesired command, however,

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Brant et al. disclose "removing the adjusted from the undesired command (corresponds to a plurality of settable parameters ...when joystick 104 placed in the position..., and actuator which causes the high speed to vary linearly from a lower speed to a higher speed. Therefore, the combination of Brandt et al. and Kim are satisfied for their intended purpose.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Kimnhung Nguyen 

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